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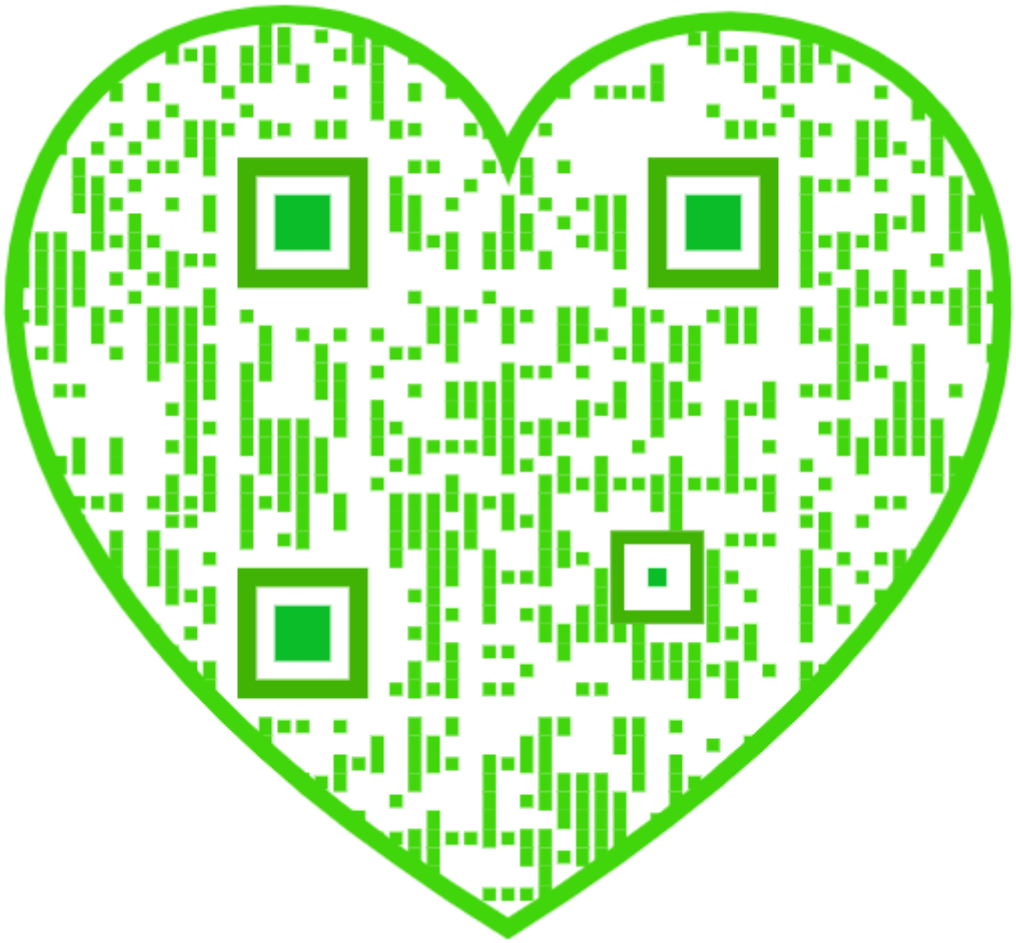
MUSHROOMS.



THE

MUSHROOMS OF CANADA.

With engravings, and Catalogue of the Fungi of Canada.

BY

DANIEL KNODE WINDER.

TORONTO.

Entered according to Act of Parliament of Canada, in the year One Thousand Eight Hundred and Seventy One, by DANIEL KNODE WINDER, in the Office of the Minister of Agriculture.

PREFACE.

THE object of this little work is to enable the reader to identify our best species of mushrooms.

The species represented by the engravings are each abundant in its season, wholesome and delicious when properly prepared for the table.

I have often and freely eaten of each species recommended.

Fresh, sound specimens only should be used, as stale plants are as likely to produce indigestion, as meat in a similar condition.

I shall be glad to give information regarding any species forwarded to me.

DANIEL K. WINDER.

Toronto, March 7th, 1871.

HOW MUSHROOMS GROW.

Unlike the flowering plants, the mushroom has no root, but in place of it, the mycelium or spawn, from which the young fungus springs.

Under the top are gills, tubes or spines, that bear the spores. These spores are not true seeds, as they have no embryo, but falling upon the earth they germinate and form the spawn.

It is a mistake to suppose that a mushroom grows in a single night. Their production takes a long time. The young fungi exist beneath or upon the surface of the ground in a compressed compass, and when a humid night occurs, they expand and rise; but although much larger, the fungus is no heavier, and its substance has not increased.

Agaricus campestris.

MEADOW MUSHROOM.

The well known Meadow mushroom grows in pastures, in autumn. It is white, and the gills are pink, at length black. Its diameter is 3 to 6 inches.

THE MEADOW MUSHROOM.

A large volume might be written about this species, the only one popularly recognized in this country, as edible. There is scarcely any one who does not feel himself competent to decide on the genuineness of a mushroom; its pink gills easily distinguish it, and out of the pickings of ten thousand hands, a mistake is of rare occurrence; and yet no fungus presents itself under such a variety of forms, or such singular diversities of aspect! The inference is plain; less discrimination than that employed to distinguish this would enable any one who should take the trouble, to recognise at a glance many of the esculent species, which every spring and autumn, fill our meadows and pastures with plenteousness. At Rome, whilst many hundred baskets of what we call toadstools are carried home for the table, almost the only one condemned to be thrown into the Tiber, by the inspector of the fungus market is our own mushroom.

The plant is so well known and highly esteemed in this country that it is hardly necessary to say a word in its favour or repeat methods of preparing it for the table. Butter, spice, parsley, salt and pepper, appear to be in the greatest request; but when stewed, fried or pickled, it is equally delicious in all.

Agaricus procerus.

SCALY MUSHROOM.

This excellent mushroom is of a pale brownish buff colour, and has white gills, and a ring that slips up and down; the top is scaly, and the stem spotted and enlarged at the base. It is from 5 to 10 inches in diameter, and grows in pastures in autumn.

There is no dangerous fungus that resembles it.

THE SCALY MUSHROOM.

Whenever an agaric on *a long stalk*, enlarged *at the base*, presents *a dry cuticle* more or less *scaly*, a darker coloured *umbonated top*, *a moveable ring*, and *white* gills, it must be *Agaricus procerus*, the parasol agaric, and it may be gathered and eaten without fear. When the whitish flesh of this agaric is bruised it shows a light reddish colour.

"A most excellent mushroom, of a delicate flavour, and it must be considered a most useful species."—*The Rev. M. J. Berkeley*

"If once tried, it must please the most fastidious."—*Worthington G. Smith.*

There can be no question but that, when young and quickly grown, the parasol agaric is a delicious fungus. It has a light and delicate flavour without the heavy richness which belongs to the ordinary field mushroom. The writer has prevailed on many persons to try it; all without exception have liked it, many have thought it quite equal and some have proclaimed it superior, to the common mushroom.—*W. Robinson, F. L. S.*

A Mode of Cooking the Agaricus procerus.—Broiled Procerus.—Remove the scales and stalks from the agarics, and broil lightly over a clear fire on both sides for a few minutes; arrange them on a dish over fresh-made, well-divided toast; sprinkle with pepper and salt, and put a small piece of butter on each; set before a brisk fire to melt the butter, and serve up quickly.

Morchella esculenta.

EDIBLE MOREL.

This delicious fungus grows in the woods, and abounds in the spring. The figure shows exactly what the Morel looks like. Colour, pale buff; height, 3 to 5 inches.

There is no poisonous fungus at all resembling it.

The Morel.

The genus Morchella comprises very few species, and they are all good to eat.

The figure shows exactly what the Morel is like: the honeycombed, pitted top is hollow, and the almost smooth stem partly so.

It yields a delicious ketchup: and stuffed with veal, and dressed between slices of bacon is a dish of exquisite flavour.

Lycoperdon giganteum.

GIANT PUFF BALL.

This edible puff ball grows in pastures, in August, and may be known by its large size, its pure white colour, and smooth skin. It must be rejected when it is getting ripe and yellowish, and dusty inside.

Cut into slices half an inch in thickness: dip the slices into yolk of egg and fry in fresh butter.

Marasmius oreades.

FAIRY RING CHAMPIGNON.

This excellent little mushroom grows in pastures, and by roadsides, in summer and autumn. Its colour is pale buff; its gills are far apart. The plant has the odour of mushrooms.

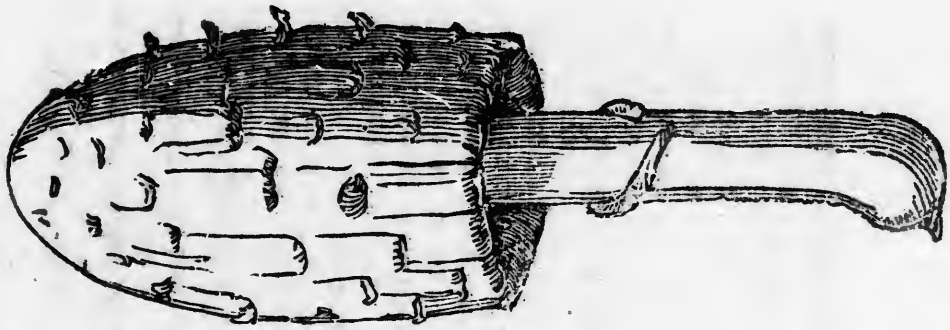
The M. URENS, or False Champignon is not edible. It sometimes grows in the same ring with the true ones, but may be recognized by its crowded gills.

FAIRY RING CHAMPIGNON.

"The common fairy-ring champignon is the best of all our funguses, yet there is scarcely one person in a thousand who dare venture to use it. With common observation no mistake need be made with regard to it. It has an extremely fine flavour, and makes perhaps the best ketchup that there is."—*Rev. M. J. Berkeley.*

"When stewed, the champignons require rather longer time to ensure their being made perfectly tender. They are readily dried by removing the stems from the fungus, threading them on a string, and hanging them up in a dry airy place. When dried, it may be kept for years without losing any of its aroma or goodness, which, on the contrary, becomes improved by the process, so as, in fact, to impart more flavour to the dish than would have been imparted by the fresh fungus; though it is not to be denied that the flesh then becomes coriaceous (or tough), and less easy of digestion."—*Dr. Badham.*

Champignons quickly Pickled.—Place the prepared buttons in bottles with a blade of mace, a tea spoonful of pepper corns, and a tea spoonful of mustard seed in each, and cover with the strongest white wine pickling vinegar, boiling hot.



MANED MUSHROOM.

This favourite mushroom is snow white; from 5 to 10 inches high, and the external surface is torn up into fleecy scales; It grows in pastures, parks, and by roadsides, in summer and autumn.

There is no poisonous fungus that resembles this species.

Coprinus comatus.

This fungus should be gathered for the table when the gills are white or just changing to pink, and before they are black, in which latter, deliquescent state, it is unfit for food.

This species is one that abounds in many localities, but it is recognized as edible by few persons, and left to waste year after year.

TO STEW MUSHROOMS.—Put into a stew-pan two ounces of butter, and shake it over the fire till melted; put in, a pint of mushrooms, a tea spoon full of salt, half as much pepper. Stew until tender and serve on a hot dish.

Cantharellus cibarius.

THE CHANTARELLE.

The fleshy body, thick swollen veins in place of gills, and its brilliant yellow colour, at once distinguish this from every other species. They grow in meadows near woods, in summer and autumn.

THE CHANTARELLE.

They often cover a hill where there are trees, and whenever they do appear they must elicit the admiration of the passers by, for they look as if made of solid gold.

When cooked this species has a rich mushroom like flavour peculiarly its own, and may be prepared for the table in various ways, according to the fancy of the consumer; but being big and solid, it should be cut up, or if stewed, allowed to simmer gently, and be served up with pepper, salt and butter.

"This fungus," observes Vittadini, "being rather dry and tough by nature, requires a considerable quantity of fluid sauce to cook it properly."

"The common people in Italy dry or pickle, or keep it in oil for winter use. Perhaps the best ways of dressing the Cantharelle are to stew or mince it by itself, or to combine it with meat or with other funguses. It requires to be gently stewed, and a long time to make it tender; but by soaking it in milk the night before, less cooking will be requisite."—*Badham.*

Hydnum repandum.

SPINE BEARING MUSHROOM.

The colour of this mushroom is buff; and instead of gills it has spines on the under surface.

The top is frequently irregular and the stem out of the centre.

SPINE-BEARING MUSHROOM.

There is no possibility of mistaking this mushroom; when once seen it is always to be remembered. Its awl-shaped spines are crowded beneath the pileus; its size and colour are most marked; it resembles closely, as has been said, a lightly-baked cracknel biscuit in colour.

This fungus occurs principally in woods, and especially in those of pine and oak; sometimes solitary, but more frequently in company and in rings.

"The general use of this fungus throughout France, Italy, and Germany, leaves no room for doubt as to its good qualities."—*Roques.*

"When well stewed it is an excellent fungus, but it requires a little caution in preparation for the table. It should be previously steeped in hot water and well drained in a cloth; in which case there is certainly not a more excellent fungus."—*Berkeley.*

Cut the mushrooms in pieces and steep for twenty minutes in warm water; then place in a pan with butter, pepper, salt, and parsley; add beef or other gravy, and simmer for an hour.

*CATALOGUE of our FUNGI, collected by the Author. I have eaten of the species marked **

AGARICINI.

Agaricus.

A mitis.
" velutinus.
" Phalloides.
" durus.
" cerussatus.
" *gambosus.
" *odorus.
" muscarius.
" semiorbicularis.
" galopus.
" separatus.
" semiglobatus.
" *ostreatus.
" laccatus.
" radicosus.
" vernus.
" *rachodes.
" sulfureus.
" mollis.
" euosmus.
" *campestris.
" equestris.
" *procerus.
" *arvensis.
" crustuliniformis.
" nudus.
A *nebularis.
" fascicularis.
" *prunulus.
" trechisporus.
" variabilis.
" acervatus.
" *villaticus.
" *excoriatus.
" *orcella.

Panus.

P stypticus.
" torulosus.

Lactarius.

L acris.
" theiogalus.
" zonarius.
" piperatus.
" pyrogalus.
" Canadensis.
" serifluus.
" torminosus.
" *deliciosus.

Hygrophorus.

H distans.
" *pratensis.
" *niveus.
" *Virgineus.

Russula.

R *ochrolenca.
" foetens.
" *rosacea.
" *alutacea.
" *heterophylla.
" emetica.

Cantharellus.

C *cibarius.
" aurantiacus.

Marasmius.

M urens.
" *oreades.
" peronatus.

Coprinus.

C ephemerus.
" *atramentarius.
" plicatilis.
" lagopus.
" picaceus.
" *comatus.

POLYPOREI.

Polyporus.

P saliguus.
" lucidus.
" ulmarius.
" lentus.
" sulfureus.

Boletus.

B flavus.
B granulatus.
" sanguineus.
" felleus.
" alutarius.
" *edulis.
" *scaber.
" pes caprae.

ELVELLACEI.

Morchella.

M. *esculenta.

Helvella.

H. *esculenta.
" *crispa.
" ephippium,
" lacunosa.

Clavaria.

C. *umbrina.
" *coralloides.
" *rugosa.
" *amethystica.
" pistallaris.

Peziza.

P onotica.
" aurantia.

Spatularia.

S. flavida.

HYDNEI.

Hydnum.

H. coralloides.
" *erinaceum.

H. *repandum.

AURICULARINI.

Stereum.

S. hirsutum.

NIDULARIACEI.

Crucibulum.

C. vulgare.

Cyathus.

C. striatus.

TREMELLINI.

Dacrymaces.

D. deliquescens.

Tremella.

T. foliacea.

PHALLOIDEI.

Phallus.

P. impudicus,

TRICOGASTRES.

Bovista.

B. nigrescens.

" plumbea.

Geaster.

G. Fimbriatus.

Lycoperdon.

L. *giganteum.

" *plumbeum,

Scleroderma.

S. vulgare.

CHEMICAL ANALYSIS OF EDIBLE AND POISONOUS FUNGI.

The following is the result of an analysis of Fungi by Prof. Vanquelin.

Agaricus Campestris.

Edible.

Adipocere.
An oily matter.
Fungin.
Vegetable albumen.
Sugar of mushrooms.
Animal substance with flavour of roasted meat.
Acetate of Potash.

Agaricus Pipiratus.

Poisonous.

Adipocere.
A brown oil.
Fungin.
Vegetable albumen.
Sugar of mushrooms.
Geletin.
Acetate and Muriate of Potash.
A fugaceous, deleterious substance.
Uncombined Acid.

MUSHROOM CULTURE.

Mushrooms may be cultivated in sheds, cellars, stables, caves, or in gardens.

Dry stable manure, with about one fourth part of good friable loam, are the best materials for a mushroom bed, which should be at least one foot thick, and the materials should be firmly beaten down.

The spawn, whether bricks or spawn gathered from dry manure, should be broken into pieces and placed on the surface of the bed, and then covered with dry manure to a depth of six inches; in ten or twelve days, if the spawn is spreading, it should be re-covered with earth and manure.

Mushroom beds should come into bearing in about two months after spawning. Beds may be made in any place, and at any time of the year, where an even temperature of about 60° can be maintained.

The beds should be watered when it is required with soft water, heated to a temperature of 80°.

Mushrooms may be raised in gardens by placing the spawn in the soil at a depth of from 2 to 6 inches. Success is almost certain if the soil can be preserved from excessive moisture.

ADDENDA.

I have found Lycoperdon areolatum, in Canada; in esculent qualities, it is nearly equal to L. giganteum.

I have also found near Toronto, a new species of Lactarius. I do not think it has been described before; and finding it in Canada only, I have proposed to name it the Canadian Blue Fungus, LACTARIUS CANADENSIS. It is from 4 to 8 inches in diameter, the gills are crowded, and run down the ringless stem. The pileus, at first is convex, at length concave; the plant is firm and woody, and grows in autumn, in pine woods. When the plant is bruised, bright blue milk exudes, which soon changes to green.. This plant not edible.